

DC1500V 1250A-3000A
Basics

- Conform to: IEC60269-4
- Rated Voltage: DC1500V
- Rated Current: 1250A~3000A
- Utilization Category: aR
- Breaking Capacity: DC150kA(Time constant: 10ms), DC250kA(Time constant: 4ms)
- UL, TUV certificate; RoHS Compliant

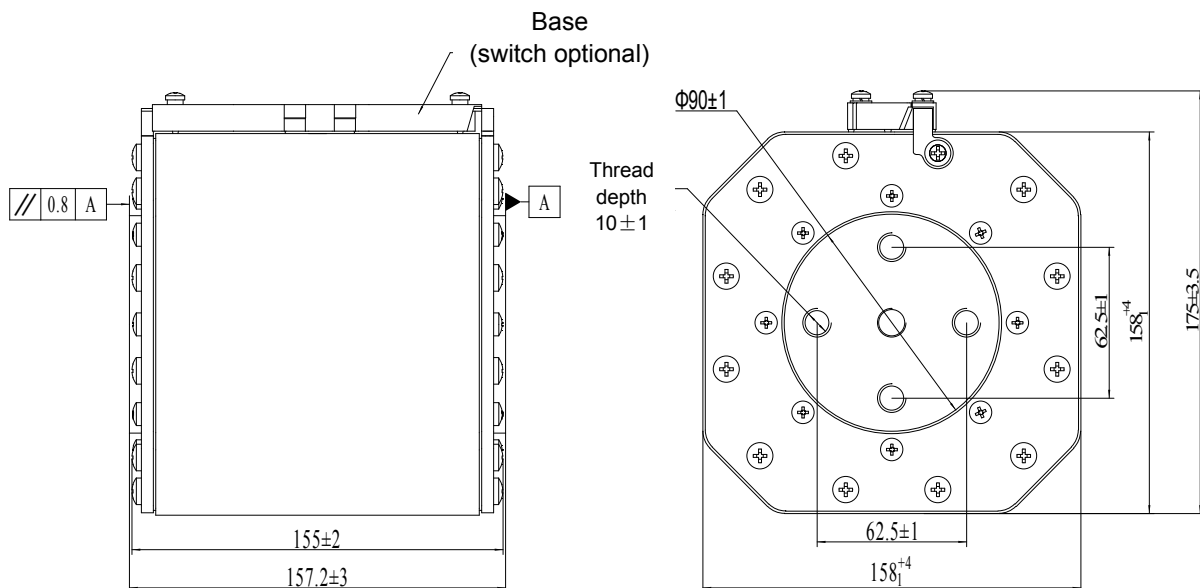
Features in high current limiting, HRC, suitable for energy storage industry, used for energy storage system and other devices and equipment as backup protection.

Note: All test data are measured under standard environment, test parameters and wiring refer to IEC60269.

	Part Number	Size	Current (A)	I ² t (kA ² s)		Loss W	Weight g	Min Package (pcs)	Max Package (pcs)	Mounting
				Prearc	Clearing					
1	RSZ307-N-UJP-1250A1500V	N	1250	708	2550	396	12055× (1±3%)	1	1	
2	RSZ307-N-UJP-1400A1500V		1400	1003	3620	421				
3	RSZ307-N-UJP-1500A1500V		1500	1258	4530	434				
4	RSZ307-N-UJP-1600A1500V		1600	1509	5440	451				
5	RSZ307-N-UJP-1800A1500V		1800	2157	7770	482				
6	RSZ307-N-UJP-2000A1500V		2000	2921	10600	520				
7	RSZ307-N-UJP-2200A1500V		2200	3905	14100	549				
8	RSZ307-N-UJP-2400A1500V		2400	4913	17700	583				
9	RSZ307-N-UJP-2500A1500V		2500	5649	20400	619				
10	RSZ307-N-UJP-2600A1500V		2600	6437	23200	628				
11	RSZ307-N-UJP-2800A1500V		2800	8165	29400	677				
12	RSZ307-N-UJP-3000A1500V		3000	10270	37100	702				

Note: 1. The nominal conditions of the above I²t data are DC1651V, 250kA.

2. Loss measured under standard natural cooling conditions.

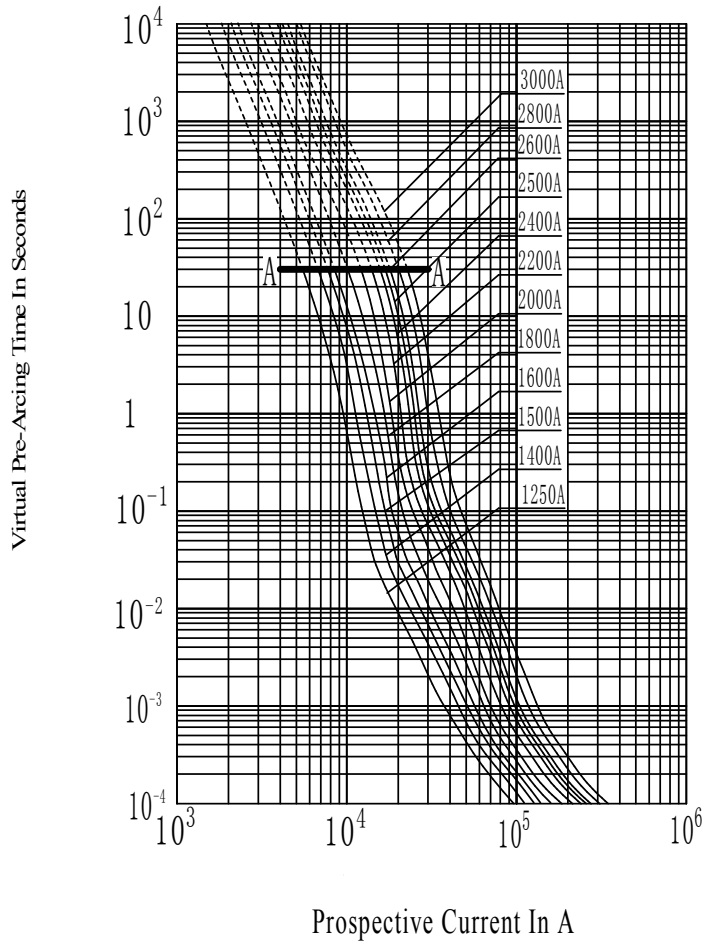
Outline Dimensions (mm)
Outline Mounting


Note: Coaxiality of both ends of contact 0.8mm

DC1500V 1250A-3000A
Mounting

- a) When installing, the screw-in size of the stud should not exceed 10mm (Recommend 9mm, 1mm below thread depth);
- b) When tightening the nut, keep the stud from rotating;
- c) Recommend screw mounting with no recommended torque when the screw is screwed in.

Nut	Recommended tightening torque
M12	46±1 N.m

Characteristic Curves:
Time-Current Curve:


Note: Curves below 100ms is equivalent prearcing time.

DC1500V 1250A-3000A

Transport and Storage

Transport

Avoid rain/snow or mechanical damage during transportation.

Storage

Storage temp: $-40^{\circ}\text{C} \sim 120^{\circ}\text{C}$, Maximum 70% RH at 40°C ;

Maximum 80% RH at 30°C ; Maximum 90% RH at 20°C ;

Package and Storage temp: $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$, Maximum 90% RH, no dewing.

Usage Conditions

Normal Condition and Corrections

Correction is not required under normal conditions.

For other conditions, if they are within tolerable range, certain correction measures may be required. If conditions are beyond tolerable range, please consult our team for evaluation and testing.

Long-term operation current is recommended to be less than 80% of rated current.

Ambient Temperature

Normal Condition

$-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$

Tolerable Range

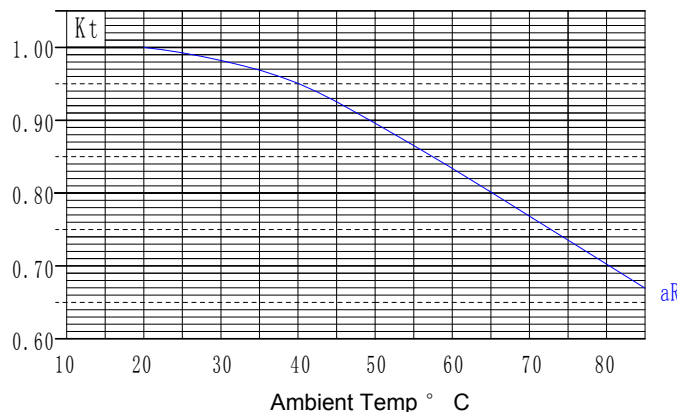
$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

Ambient temperature correction: operating below -5°C , resulting in longer pre-arc time under small overcurrent and slightly increased rated current.

If above 40°C , rated current is corrected as per factor $-K_t$.

Note 1: K_t value has considered safety margin of rated current during normal operation.

Note 2: ambient temperature should last 1-2 hrs. before it has a significant impact on fuse.



Altitude

Normal Condition

Below 2000m

Tolerable Condition

2000-4500m

Correction: higher altitude would affect insulation and dissipation, also changes air pressure.

- For every 100m higher, fuse temperature rise increases by 0.1-0.5k.
- For every 100m higher, ambient temperature drops by 0.5k approximately.
- Normally for fuses in open environment, altitude condition is negligible.
- For closed environment, if ambient temperature inside remains almost stable under different altitude.

If exceed 40°C , fuse should be degraded. For every 1000m, rated current should be degraded by 2%-5%.

DC1500V 1250A-3000A



Note: for same series, larger rated fuse should use higher degrade %, and lower degrade % for smaller one.

Air Insulation Strength (Breakdown)

- Air insulation reduces with higher altitude. For 2000-4500m, insulation decreases by 12-15% for every 1000m as per GB/T16935.1. Thus adjust clearing space.
- Space between fuse terminals is often much larger than specified value in standard.
- User should consider altitude impact on spacing between fuse and other electric component, earthing etc.

Normal Conditions

- Clean atmosphere, maximum 50% RH at 40°C.
- Higher RH is allowed when temperature is low, e.g. maximum 90% at 20 °C.
- Moderate dewing may occur under temperature changes.

Tolerable Conditions

- If dewing is minor, RH could be up to 95%.

Vibration

- The withstand to anti-vibration and mechanical shock is suitable for general motor vehicles.
- For severe vibration application, please consult our team for evaluation and testing.

Pollution Class

- Grade 3 pollution withstand

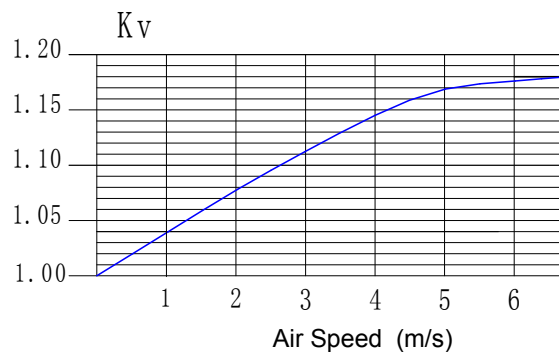
Mounting Condition

Normal working conditions

- Installed in open air without any ventilation. No heat source within 1m except for conductors
- Contact of fuses must be securely connected. Contact resistance should not affect operation.
- Fuse can be mounted in any orientation. If spring compression is adopted, make sure it is properly mounted to avoid harmful effect due to gravity or vibration.

Forced Air and Liquid Cooling

- Current carrying capacity of fuse can be improved by implementing forced air or liquid cooling.



Safety and Maintenance

- Make sure sufficient clearance between installed fuses. Install insulation if necessary. This is to avoid possible inter-phase short circuit while replacing fuse.
- Periodic maintenance per electric equipment. Remove oxidation, dusts on contacting part.
- It is compulsory to replace all mechanically damaged fuses.
- Unless permissive (e.g. fused load-switch), do not replace fuses while energized.
- While servicing, fuse will not generate gas, dust, noise or others that may harm the environment
- Metallic part of fuse can be recycled. Non-metal part can be crushed and treated as normal industry waste. It will not cause further pollution to the environment.